

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2002-030435

(43)Date of publication of application : 31.01.2002

(51)Int.Cl.

C23C 14/54
 C23C 14/08
 C23C 14/50
 H01J 9/20
 H01K 3/00

(21)Application number : 2000-208850

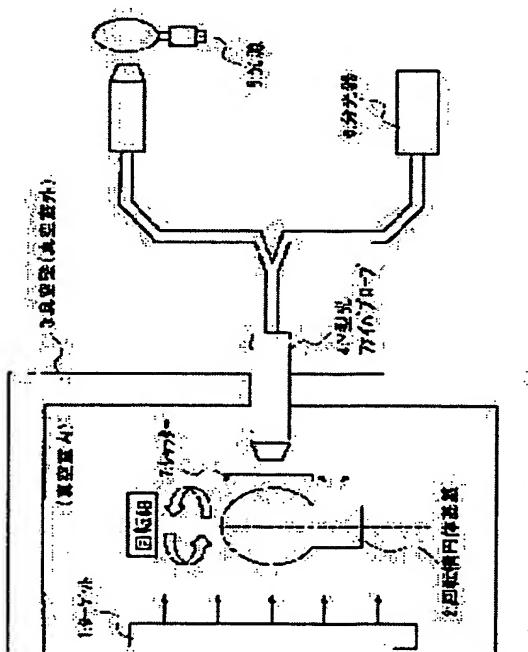
(71)Applicant : MATSUSHITA ELECTRIC IND CO LTD

(22)Date of filing : 10.07.2000

(72)Inventor : KOMATA YUJI
HASHIMOTO HISATAKA**(54) METHOD FOR DEPOSITING THIN FILM ON SURFACE OF SPHEROIDAL SUBSTRATE****(57)Abstract:**

PROBLEM TO BE SOLVED: To provide a method for depositing a thin film while monitoring film thickness and various spectral characteristics in real time when depositing an optical film of laminated structure in a film deposition process by means of sputtering and vapor deposition of various kinds.

SOLUTION: A spheroidal substrate 2 rotating on an axis of rotation, a film deposition source (e.g. sputtering target) 1 and the tip of a Y-type optical fiber probe 4 are mutually located, within a vacuum chamber of a film deposition system, in such positions that the adhesion of film deposition particles sputtered from the film deposition source to the tip of the optical fiber probe standing behind the spheroidal substrate 2 can be prevented. While depositing a thin film on the spheroidal substrate surface 2, the temporal variation of the film-thickness value of the optical thin film and also reflection and transmission spectral characteristics can be evaluated simultaneously with film deposition, and film deposition conditions can be regulated in real time.

**LEGAL STATUS**

[Date of request for examination] 29.05.2002

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or

application converted registration]
[Date of final disposal for application]
[Patent number]
[Date of registration]
[Number of appeal against examiner's
decision of rejection]
[Date of requesting appeal against
examiner's decision of rejection]
[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office